

Claims 4, 6, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 is dependent from canceled claim 2.

In claim 4, line 2, the phrase "the means" does not have a clear antecedent basis because claim 3 uses the term "the member".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, are rejected under 35 U.S.C. 102(b) as being anticipated by US 4945726 (Beale).

Beale discloses in figure 8 a Stirling engine comprising a power piston 202, a displacer piston 208, a hollow piston rod 222 with hollow space inside, the cylinder housing 204 comprising a work space located on a displacer piston side and a back-pressure space located opposite to the work space (at the bottom of the cylinder). Elements 217, 218 along with members 214, 216, 212 are used to minimizing the flow between the back-pressure space and the hollow space (the spring 218 is biasly closing the holes between the hollow space and the pressure space).

Art Unit: 3748

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by US 4404802 (Beale).

Beale discloses a Stirling engine comprising a power piston 16, a displacer piston 14, a hollow piston rod 23 with hollow space inside, the cylinder housing 17 comprising a work space located on a displacer piston side and a back-pressure space 13 located opposite to the work space (at the bottom of the cylinder). Channels 34, 36, 41, 45, 37, are used to provide communication between the work space, back-pressure space, and hollow space.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5461859 disclose a Stirling engine comprising a power piston, a displacer piston and a hollow piston rod.

Art Unit: 3748

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hoang M Nguyen/
Primary Examiner, Art Unit 3748

HOANG NGUYEN
PRIMARY EXAMINER
ART UNIT 3748

Hoang Minh Nguyen
6/11/2008